

## ABSTRACT

An alkaline solution reflux path which refluxes an alkaline solution being discharged from an alkaline solution discharge port 5 101 of an absorber 100 to an alkaline solution introduction port 102 to absorb carbon dioxide and the like, and an alkaline solution reflux path which refluxes a regenerated alkaline solution being discharged from a regenerated alkaline solution discharge port 10 111 of a regenerator 110 to an alkaline solution jet port 112 and discharges the carbon dioxide to regenerate an alkaline solution are disposed separately and independently. Thus, the flow rates and the like of the alkaline solutions flowing through the individual alkaline solution reflux paths can be set individually.